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**Road vehicles -- Brake lining friction materials -- Friction  
behaviour assessment method for automotive brake systems**

道路车辆 制动衬片摩擦材料 汽车制动系统摩擦性能评价方法

**(English Translation)**

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### Reference

## Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to the international standard ISO 26867.:2009 "Road vehicle brake lining friction material Car brake System friction performance evaluation".

And the normative reference in this standard international documents are consistent with the relationship between China's documents are as follows.

GB/T 5620-2002 Road vehicles - Glossary terms for automobile and trailer brakes and their definitions (GB/T 5620-2002, ISO 611.:1994, IDT);

--- GB/T 26738-2011 Road vehicle brake lining friction material Product confirmation and quality assurance (GB/T 26738-2011, ISO 15484.:2008, IDT).

This standard is proposed by the China Building Materials Federation.

This standard is the national non-metallic mineral products and products Standardization Technical Committee (SAC/TC406) centralized.

The drafting unit. Dongying Borui Brake System Co., Ltd., Tonglu Yuxin Auto Parts Co., Ltd., Ningguo Eagle Auto Parts Co., Ltd.

Co., Ltd., Zhuhai Greeley Friction Material Co., Ltd., Hubei Feilong Friction Sealing Material Co., Ltd., Jiangyin Hicklin Friction Material Material Co., Ltd., Chongqing Hongyu friction products Co., Ltd., the national non-metallic mineral products quality supervision and inspection center.

## Introduction

In the process of coordinating the application of automobile braking system, the modern evaluation of friction performance is imperative. This standard is intended to replace the previous end all based on a single trailing brake as a friction performance evaluation test procedures, it does not take into account the real life of the driving conditions or vehicle specific parameters.

Friction materials are tested and evaluated under different conditions to determine the breadth of data. These data are in different stages of product life, such as manufacturing process development, production validation, quality control, product stereotypes and application areas of the assessment is very critical.

This standard is intended to be used in conjunction with other applicable standards or test procedures (ISO , SAE, JIS/JASO, national laws or regulations, other items or users Specified test procedures) to evaluate the friction material under different conditions to ensure the breadth of its data. This standard is not included National laws or regulations in the braking distance, braking force distribution, different vehicle conditions (speed, temperature, tire adhesion, car load) and brake system Performance requirements for operating conditions.

This standard is used as a test procedure for the evaluation of the inertia test bench of friction performance, instead of the previous basis based on a single fully traced test protocol.

This standard supports friction performance evaluation of friction material life cycle.

The friction performance evaluation and description are very limited when subjected to a drag test with a sample or a shrink test bench. Drag and drop brake with actual driving Conditions, braking system characteristics or vehicle dynamics. Friction of the dual surface (friction lining and brake disc or brake drum) transfer layer of chemistry the nature and structure of the development will produce changes in the coefficient of friction, resulting in changes in the characteristics, such as sliding speed, surface and temperature distribution, brake pressure Force, braking energy and surface local structure. In any braking process, the braking energy is proportional to the vehicle mass distribution and the dynamic mass transfer of. This is directly related to the wheelbase of the vehicle, the center of gravity, the height of the vehicle itself, which can directly affect the performance of the friction material.

When the same brake lining or part number for different vehicles, the different performance depends on its load, speed, operating temperature, applied force and work experience. modern the test equipment enables the friction formula designers, process designers, application engineers, manufacturing personnel to obtain extensive and detailed under various braking conditions the friction characteristics of the brake lining or lining.

This standard is intended to evaluate the friction performance of a range of travel speeds, braking temperatures, brake pressures and deceleration levels price. This new procedure has the following advantages.

- standard methods for determining frictional performance during early review, benchmarking, development or production monitoring phases;
- the average torque and pressure calculation using the distance meter;
- statistical data on instantaneous friction;
- Evaluate the braking distance with the fully emitted average braking deceleration;
- control and record environmental conditions.

Road vehicles Brake linings Friction materials Automotive brakes Evaluation Method of System Friction Performance

## 1 Scope

This standard specifies the effect of pressure, temperature, and linear velocity on the friction coefficient of a given friction material (brake disc or brake drum) Evaluation method.

This standard applies to the comparison of friction materials under the same conditions, or when the lack of friction material control specifications and the performance requirements of the friction material or to limit the performance of certain friction materials. Taking into account the cooling systems of different types of inertia test benches and ensuring repeatable temperature increases the braking temperature is the control item in the decay test. The selected brake and brake discs are determined according to the project.

In the production verification test, the test results can be combined with statistical process control as part of the quality assurance program. Specific items or dollars Delineate its scope of application and evaluation criteria.

This standard allows the number of test units and braking times to be increased during product development.

## 2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the